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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,401

10/01/2003

Martin C. Zieger

6741P001

7555

45062 7590 04/15/2008  
SAP/BLAKELY  
1279 OAKMEAD PARKWAY  
SUNNYVALE, CA 94085-4040

EXAMINER

SHEIKH, ASFAND M

ART UNIT

PAPER NUMBER

3627

MAIL DATE

DELIVERY MODE

04/15/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/676,401	ZIEGER, MARTIN C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Asfand M. Sheikh	3627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benda et al. (US 6,937,992 B1) in view of Cappellini (US 2003/0014286 A1).

Claims 1, 3, 5, 7, 8, 9, 10, 12, 14, 15, 16, 17, 18, 20, 22, 24  
25, 26, 27, 29, 30, 31, 33

Benda discloses comprising: receiving a demand order including a set of products to be shipped (see at least, abstract and col. 4, lines 28-39 and col. 5, lines 41-63).

Benda fails to disclose simulating a loading of a shipment of the set of products into a set of transports; evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement; and attempting to fill each transport in the set in simulating the loading of the shipment.

Cappellini discloses disclose simulating a loading of a shipment of the set of products into a set of transports (see at least, [0182]); evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement (see at least, [0170] and [0188]); and attempting to fill each transport in the set in simulating the loading of the shipment (see at least, [0189]); **[claim 3]** wherein the complex logical statement is defined by a user (see at least, [0189]: various rules defined by a user); **[claim 5]** further comprising: downsizing the shipment to match a maximum capacity of the transport (see at least, [0183] and [0189]); **[claim 7]** detecting a skipping of a range of a constraint (see at least, [0186]: the examiner notes a box weight is taken into account for stacking); **[claim 8 and 10]** wherein simulating includes incrementing an amount of a first product in the shipment by one shipping unit (see at least, [0182]: the examiner notes the use of a mathematical model that would adjust as necessary to fit a given rule (e.g. add, subtract, etc); **[claim 9]** wherein the shipping unit is a pallet (see at least, [185]).

It would have been obvious to one of ordinary skill in the art to modify the teachings of Benda's vehicle capacity maximization to include simulating a loading of a shipment of the set of products into a set of transports; evaluating a

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shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement; and attempting to fill each transport in the set in simulating the loading of the shipment as taught by Cappellini. One of ordinary skill in the art would have been motivated to combine the teachings in order to used for the sole simple use of determining the availability of space or capacity for a required transport vehicle (see at least, Cappellini, [0183]).

Claims 2, 13, and 19

Benda discloses further comprising: simulating one of a balanced load and a straight load of the shipment in the transport (see at least, col. 5, lines 15-57: the examiner notes straight loading is used: one shipment then building on the one shipment with another shipment).

Claims 4, 21, and 32

Benda discloses further comprising: upsizing the shipment to fill the transport (see at least, col. 5, lines 15-57: the examiner notes straight loading is used: one shipment then building on the one shipment with another shipment).

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Claims 6 and 23

Benda discloses wherein the shipping rules include at least one constraint including one of a weight constraint, a volume constraint, and a product combination constraint (see at least, col. 5, lines 15-57: the examiner notes the use of a volume constraint to maximize a vehicle capacity).

Claims 11 and 28

Benda discloses further comprising: attempting to fill at least one transport, the at least one transport having multiple destinations (see at least, col. 5, lines 15-57: the examiner notes attempting to fill the transport via the use of multiple destinations).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asfand M. Sheikh whose telephone number is (571)272-1466. The examiner can normally be reached on M-F 8a-4:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan M. Zeender can be reached on (571) 272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. Ryan Zeender/  
Supervisory Patent Examiner, Art Unit  
3627

Asfand M Sheikh  
Examiner  
Art Unit 3627

/Asfand M Sheikh/  
Examiner, Art Unit 3627

April 11, 2008